Flight
Advanced
Strike
TACF-01
T-45C

Mission

INTRODUCE TACTICAL FORMATION FLYING

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ORM

- **Operational Requirements / Limitations**
  - **Crew Rest / Crew Day / Work Week**
  - **R&I**
  - **IP Currency (SOP)**
  - **Warm Up Eligibility**
  - **Previous Flight Incomplete? Determine Graded Items.**
- **Human Factors**
  - **Life Stressors / External Factors / Personal Problems**
  - **Medical Status (Rest / Nourishment / Hydration)**
- **Hazards and Controls**
  - **Routine**
  - **Weather**
    - **Current Observations and Forecasts**
    - **Crosswinds**
    - **Fuel Considerations**
  - **Mission Specific**

ADMIN

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- **QOD**
  - NATOPS
  - EP
  - SOP

Flight Brief

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- **Brief**
  - a. QOD (NATOPS / EP / SOP)
  - b. Lost sight
  - c. VCR management
  - d. G-Warm maneuver
  - e. 500’ Safety Bubble

- **Demo**
  - **a. Position errors / corrections**
  - **b. Running eyeball calibration**
- **Introduce**
  - a. Combat checks
  - b. Voice communications
  - c. Combat spread
  - d. Check turns
  - e. Shackle turns
  - f. Cruise turns
  - g. Tactical turns
  - h. In-Place turns
  - i. Cross turns
  - j. Gunsight tracking exercise (fuel permitting)
  - k. Unknown airspeed rendezvous
  - l. Situational awareness
- **Practice**
  - a. Formation
  - b. Touch and go landings

Combat Spread

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– **What is it?**

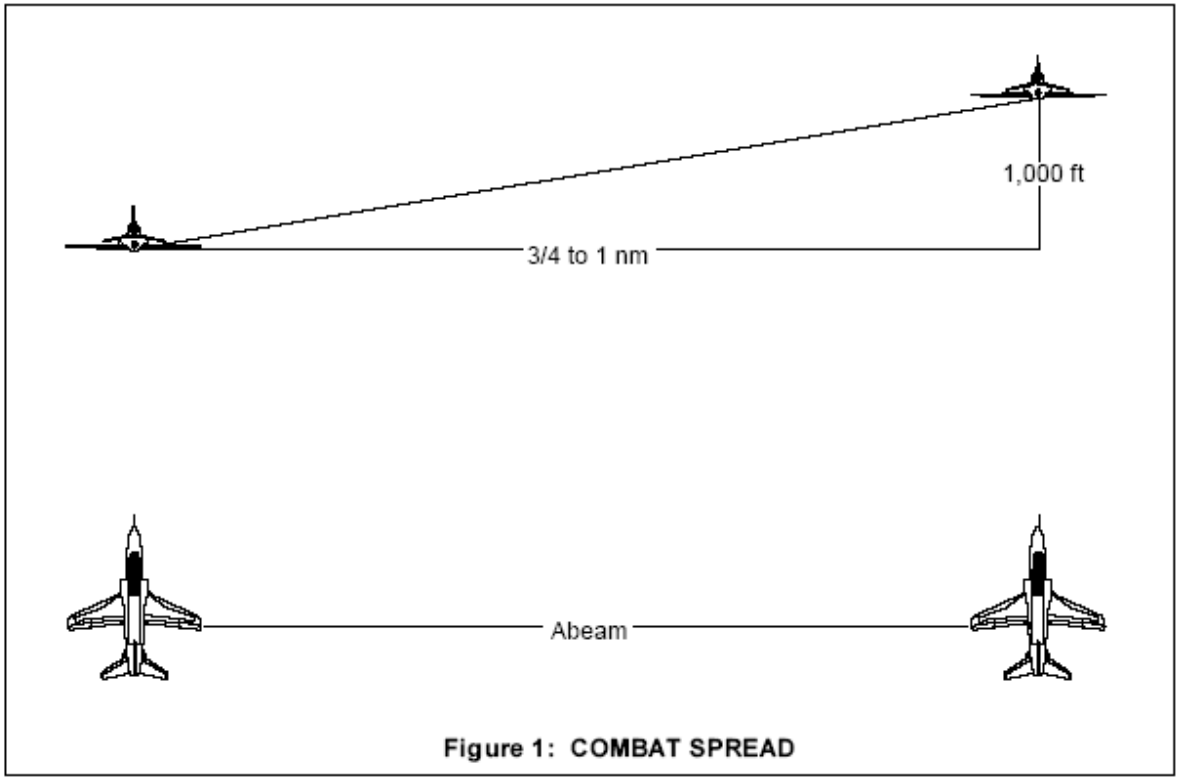

Figure 1: COMBAT SPREAD

– **How to get there**

- **Check your heading, generate an airspeed advantage, and take a 15-20° cut away from the lead.**

Maintaining Combat Spread

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- **Priorities**
  - **1. Bearing Line**
    - **Airspeed dependent(may need to account for a 5 kt TAS difference with 1000’ of altitude difference)**
  - **2. Abeam distance**
  - **3. Altitude**

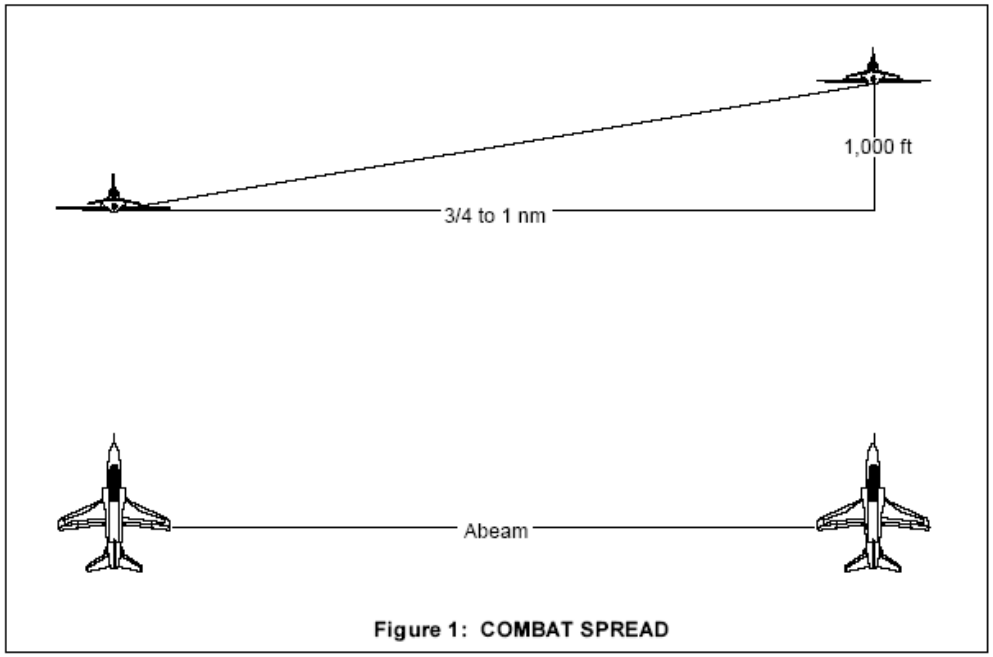

Figure 1: COMBAT SPREAD

Combat Spread Corrections

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- **If Sucked**
  - **Wingman needs to accelerate via unload and power addition to reach bearing line.**
- **If Acute**
  - **Wingman needs to decelerate. Different techniques available: 1) Climb to decelerate or 2)maintain altitude, take a cut away and then back into lead to slow downrange travel.**
- **If wide or acute,**
  - **Wingman needs to fly toward or away as appropriate. Care should be given to add enough airspeed and not to turn too much, as doing so will trade the wingman's wide or tight for a sucked position.**

Check Turns

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- **Into**
  - **Turn will make you acute.**
  - **Multiple techniques to fix position.**
  - **Big Picture: Slow your down range travel compared to lead, then fix your altitude and abeam distance.**
- **Away**
  - **Turn will make you sucked.**
  - **Big Picture: Increase your down range travel compared to the lead (ie. lower your nose and increase your airspeed), then fix your altitude and abeam distance.**

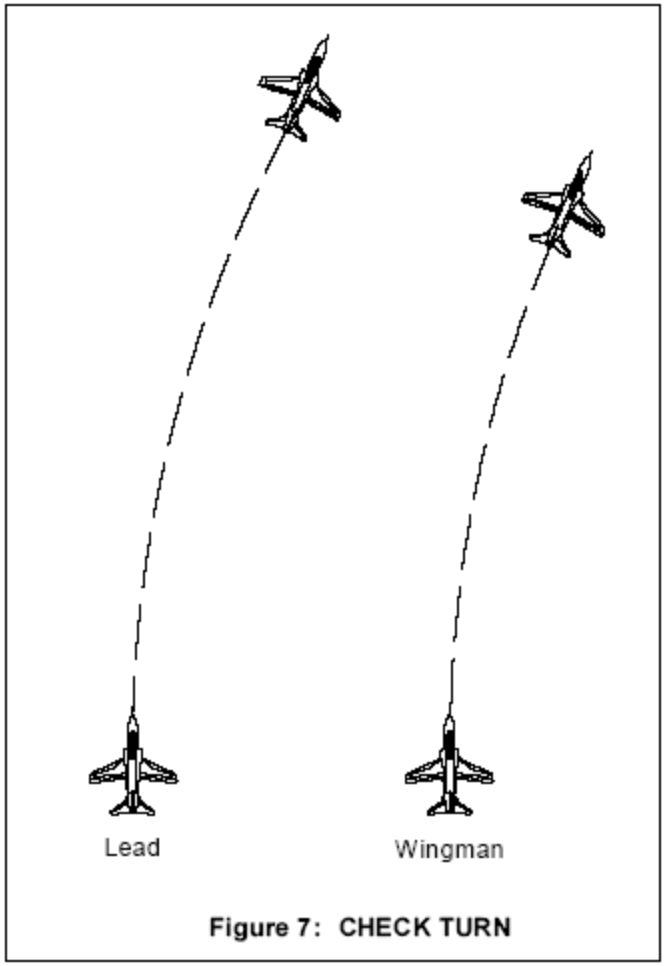

Figure 7: CHECK TURN

Cruise Turns

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- **Into**
  - **15º AOB until lead disappears under wing for 2-4 seconds, then 45º AOB.**
  - **Corrections**
    - **Sucked / Acute**
    - **Wide / Tight**

- **Away**
  - **45º AOB until crossing lead's 6 at 2k, then 15º AOB.**
  - **Corrections**
    - **Sucked / Acute**
    - **Wide / Tight**

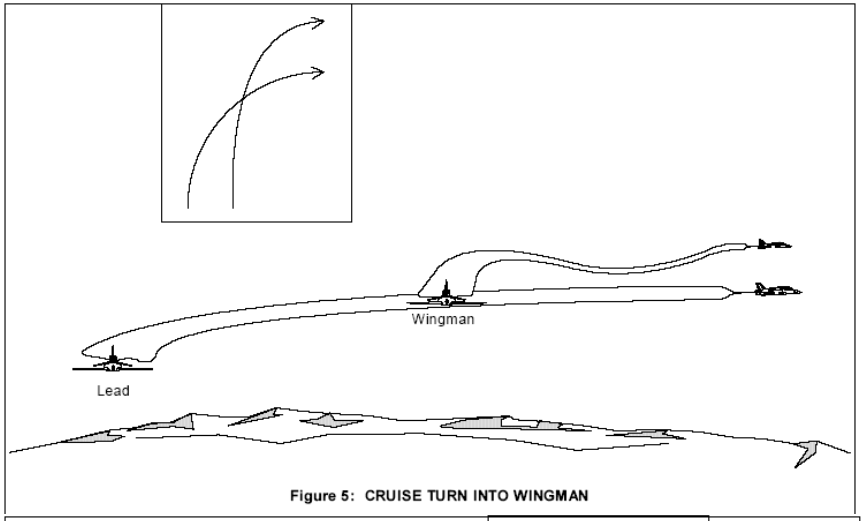

Figure 5: CRUISE TURN INTO WINGMAN

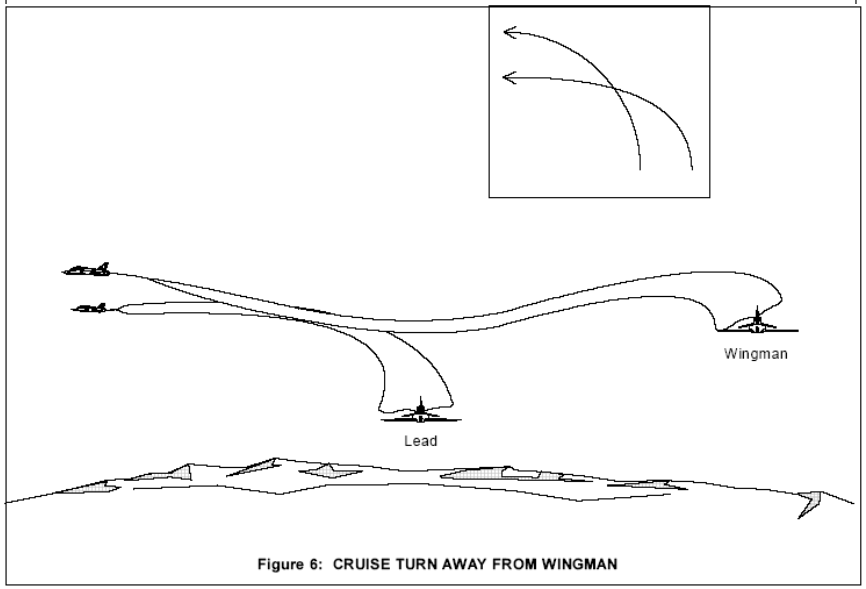

Figure 6: CRUISE TURN AWAY FROM WINGMAN

Tactical Turns

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- **Into**
  - **Wait until looking down lead's intakes.**
  - **Start a level 14 unit pull to the new heading while maintaining 300 kts.**
  - **Adjust timing of turn, amount of pull, and airspeed as necessary to come out of turn in position.**
- **Away**
  - **Start a level 14 unit pull to the new heading while maintaining 300 kts.**
  - **Make adjustments to fix positioning.**

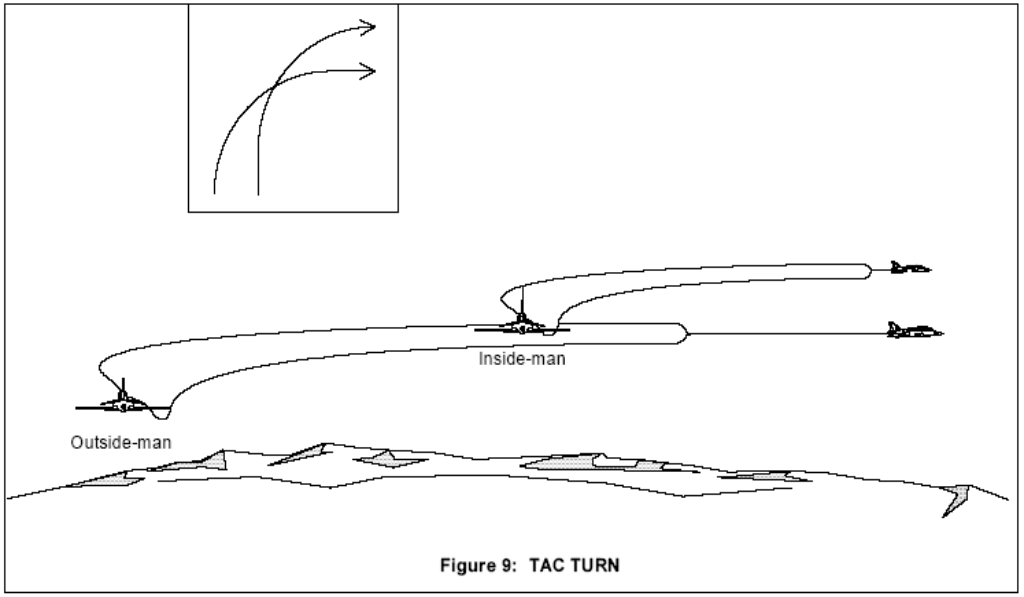

Figure 9: TAC TURN

In-Place Turns

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- **Into**
  - **Make a level 14 unit turn for 180°, maintain 300 kts.**
  - **Corrections for sucked / acute start.**

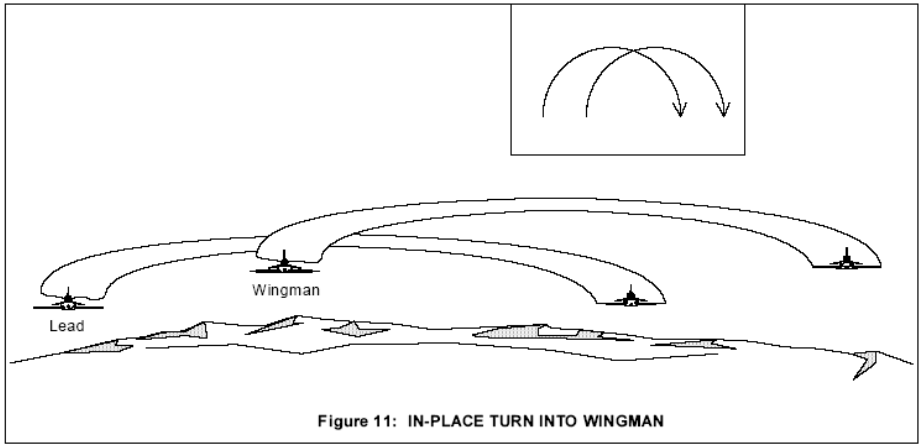

Figure 11: IN-PLACE TURN INTO WINGMAN

- **Away**
  - **Make a level 14 unit turn for 180°, maintain 300 kts.**
  - **Corrections for sucked / acute start.**
  - **Do <u>NOT</u> float the turn when belly up to lead!**

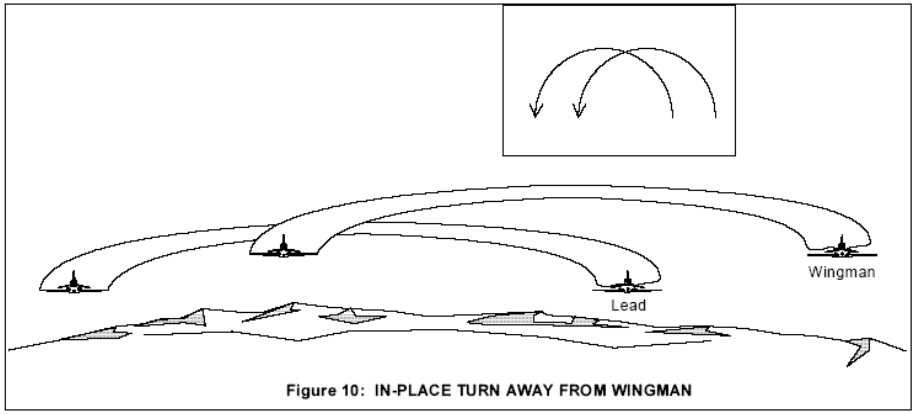

Figure 10: IN-PLACE TURN AWAY FROM WINGMAN

Shackle Turns

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- **14 unit level turn into lead, putting the original heading on the 45° benchmark (or as appropriate to help fix your position).**
- **Maintain 300 kts keeping altitude separation from lead.**
- **Wait approx 2 sec then pull 14 units back to the original heading. (Corrections for sucked / acute.**

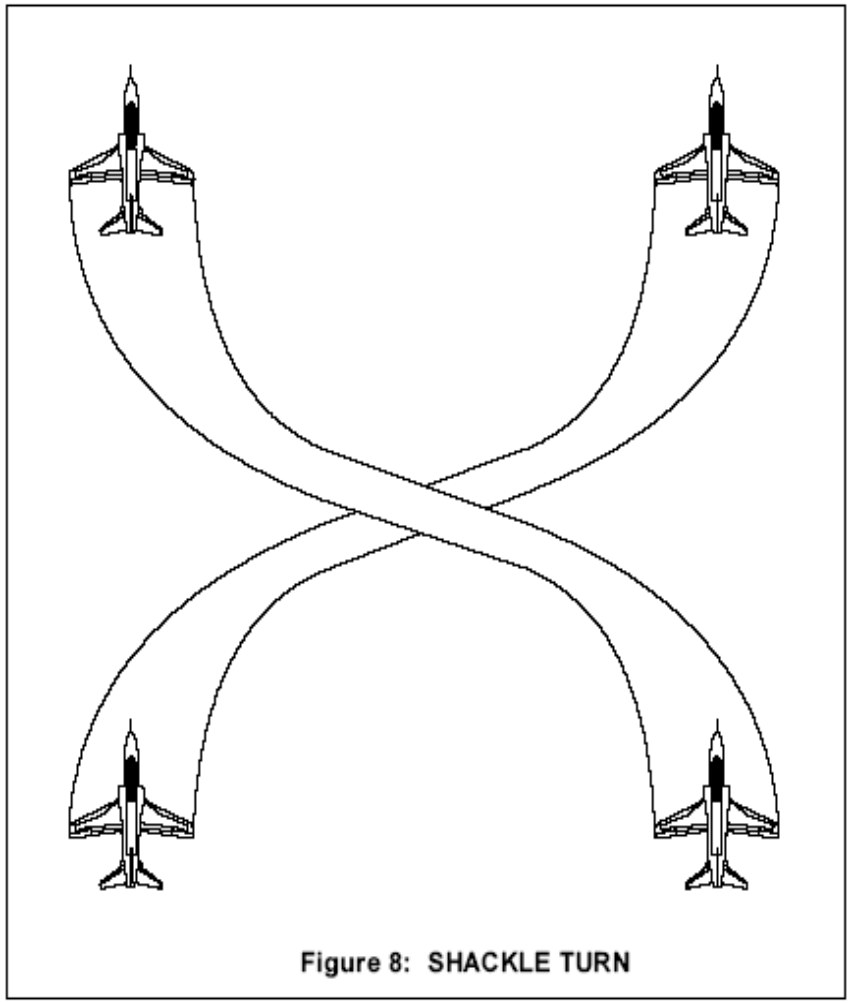

Figure 8: SHACKLE TURN

Shackle Turns

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- **14 unit level turn into lead, putting the original heading on the 45° benchmark (o as appropriate to help fix your position).**
- **Maintain 300 kts keeping altitude separation from lead.**
- **Wait approx 2 sec then pull 14 units back to the original heading. (Corrections for sucked / acute.**

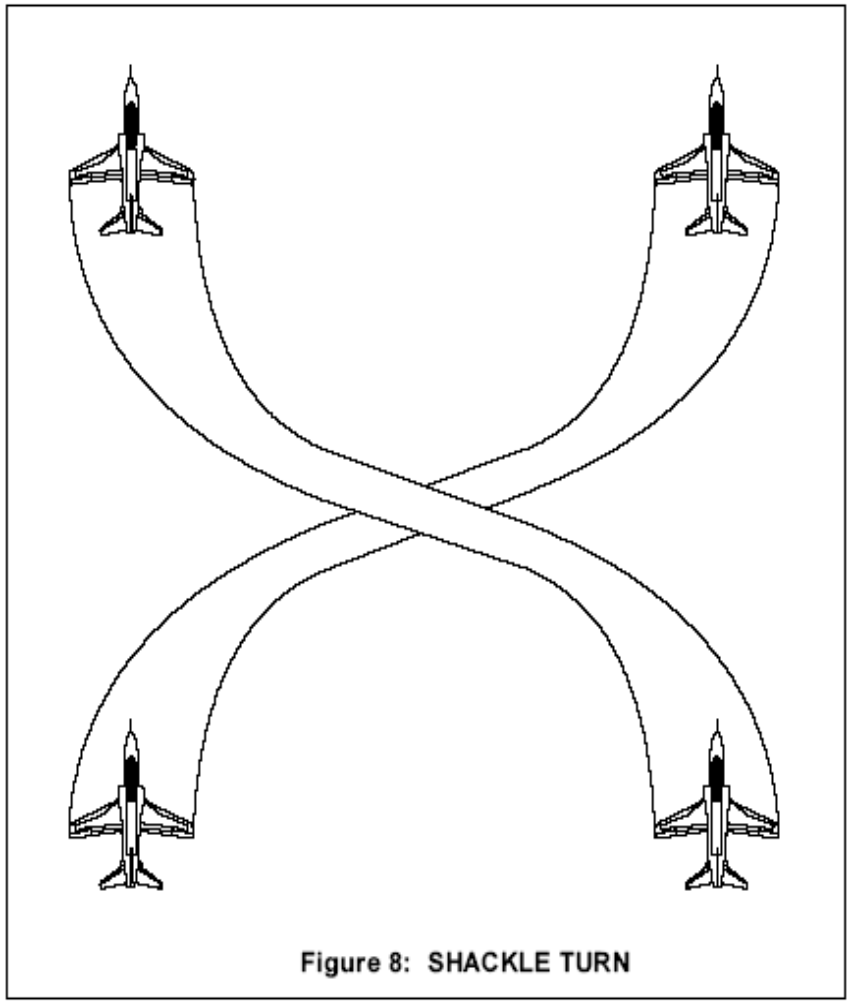

Figure 8: SHACKLE TURN

Cross Turns

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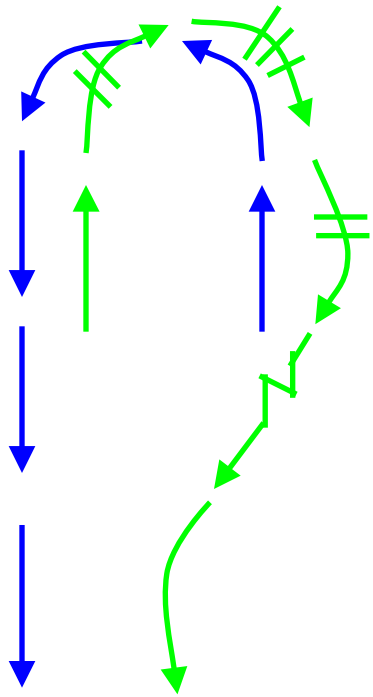
- **17 unit, nibble of buffet pull into lead.**
- **Must maintain 500’ of separation from lead. Overbank to 135deg after flight cross.**
- **Use altitude to gain an airspeed advantage and fix your position.**
- **Corrections for sucked / acute start.**



Weapons Envelope

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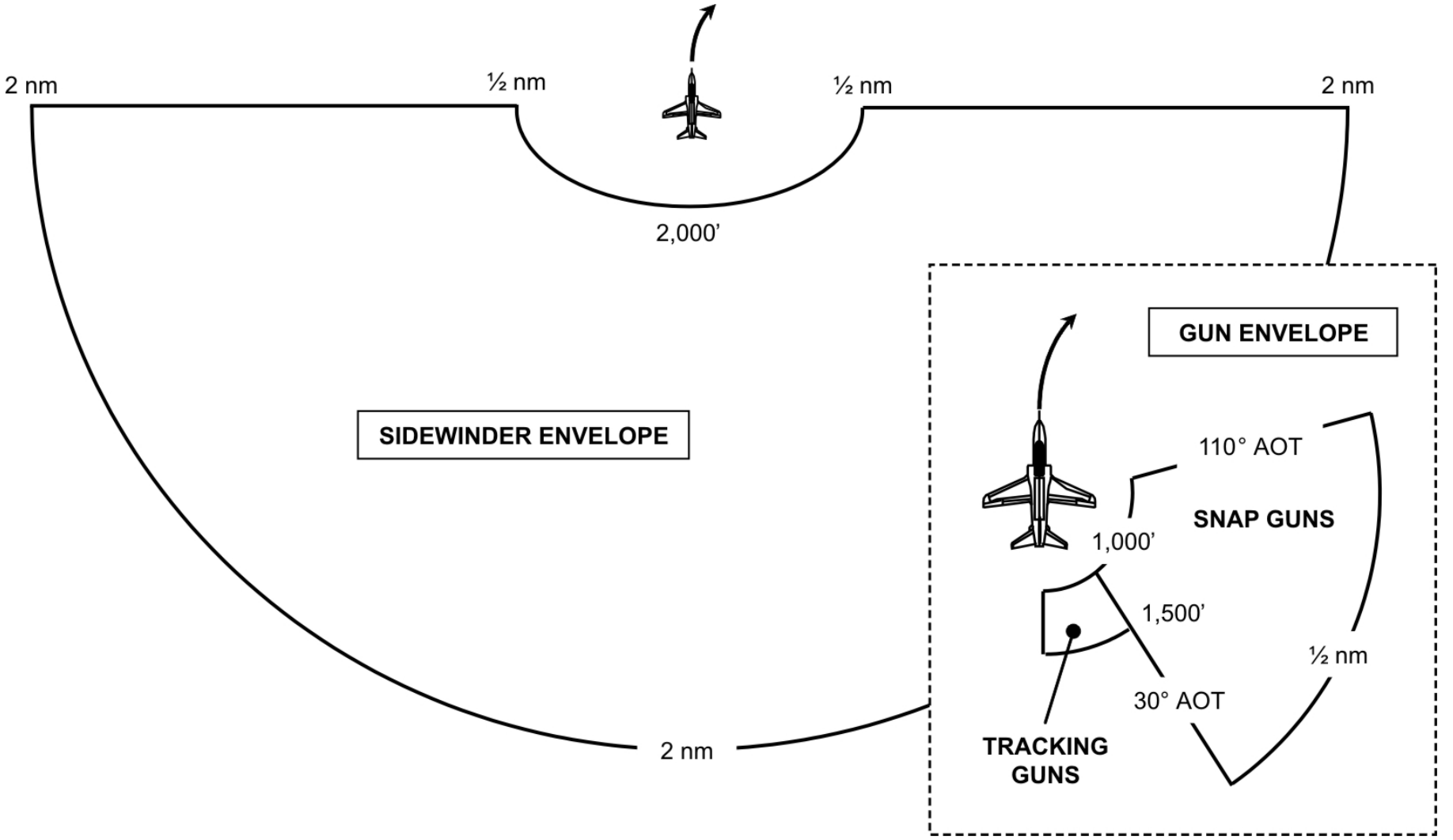

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Unknown Airspeed Rendezvous

- **Continue flying good Tacform until Fenced Out (Master Arm off with Gun deselected and the HUD back in the normal mode) and cleared to join by the lead.**

  - **When joining, make the rendezvous look like one that you have practiced before.**
  - **Lead will be setting the power and turning to put the RTB heading on the nose.**
  - **The join will be either a running rendezvous, CV rendezvous, or a combination.**

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COORDINATION BRIEF

- **All members of flight required to attend the rest of the brief**

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ORM

- **Operational Requirements / Limitations**
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TTO

- **Who will call a TTO?**
- **What situations will the TTO be called?**
  - **Safety**
  - **Confusion / Misunderstanding**
- **IP Responsibilities**
  - **Recognize need for TTO**
  - **Explanation / Instruction as necessary**
  - **Documentation on ATF**
- **When and how will training resume?**

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ADMIN (card)

- **A/C - ATC C/S - Tactical C/S - Crew**
- **Brief / Walk / Marshal / Takeoff / Land Times**
- **ATC Clearance / IFF**
- **Area**
- **Line / T/O / Abort / RPM**
- **Comm Plan - Tac**
- **Nav Plan**
- **LCLS**
- **Joker / Bingo**

ADMIN

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- **Launch**
  - **Weather**
  - **Preflight / Start / Marshal / Taxi**
  - **T/O / Rdvs**
  - **Formation**
  - **Transit**
  - **RadAlt Usage**
- **RTB**
  - **Form**
  - **Recovery**
  - **Diverts**
  - **NOTAMs**

Tac Admin

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Fence Checks

Initiated by Wing

G’s and Fuel –

Between Loose Deuce and GST

Knock It Offs –

Maintain Visual and fly to combat spread.

Conduct

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- **Press to Combat Spread**
- **G-Warm**
- **Check Turns**
- **Shackle Turns**
- **Cruise Turns**
- **Tac Turns**
- **In-Place Turns**
- **Cross Turns**
- **Gunsight Tracking (fuel permitting)**

- **LEAD RESERVES THE RIGHT TO DO ANY TURN AT ANY TIME FOR AREA MANAGEMENT!**

Emergencies

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- **Ground Emergencies**
- **Abort**
- **Rwy Dep / Gnd Ejection**
- **Radio/ICS failure**
- **Loss of Navaids**
- **Lost Plane / Lost Sight**
- **System Failures**
- **Disorientation**
- **Bird strike/ Midair**
- **SAR procedures**
- **Ejection**
- **Aircrew Coordination**
- **Underrun**

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Recap

- **Overall Flow**
- **Questions**

STANDARD DEBRIEFING FORMAT

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- The Flight Lead or Pilot-in-Command is responsible for ensuring all flight or crewmembers are thoroughly debriefed on the conduct of the mission utilizing the “S-P-B-E-MS-LL” format outlined below. (Refer to the CTW-1/CTW-2 Expanding Debriefing Guide for specific objectives).

I. Safety
II. Planning
III. Brief
IV. Execution
V. Mission Success
VI. Lessons Learned

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